RIVER TERRACE MOBILE HOME PARK (PWSNO 1090126) SOURCE WATER ASSESSMENT REPORT

August 6, 2002



State of Idaho Department of Environmental Quality

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Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This risk assessment is based on a land use inventory in the well recharge zone, sensitivity factors associated with how the well was constructed, and aquifer characteristics.

This report, *Source Water Assessment for River Terrace Mobile Home Park*, describes the public drinking water wells; the well recharge zone and potential contaminant sites located inside the recharge zone boundaries. This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this public water system. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.

River Terrace Mobile Home Park drinking water is supplied by 3 wells drawing water from a small aquifer in the vicinity of Oldtown, Idaho. The system currently serves 26 connections in a mobile home park south of the Pend Oreille River. Historically, River Terrace Mobile Home Park has had few water quality problems. A groundwater Susceptibility Analysis conducted by DEQ May 15, 2002 found the wells to be moderately susceptible to contamination, mostly because of natural risk factors associated with local geology.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

The water system is well run and is in compliance with *Idaho Rules for Public Drinking Water Systems*. The only well maintenance deficiencies noted during a sanitary survey in April 2002 were the need screen the #3 well vent, and to clean the vent on Well #2. The park owns the land around its wells and restricts activity that could potentially contaminate the wells. Additional protection measures the park should consider are covering the wellheads and fencing the well lots. Because the park may not have direct jurisdiction over the entire recharge zone delineated for its wells, it will be important to form partnerships with neighboring landowners, businesses and state and local agencies to protect the ground water the aquifer.

Due to the time involved with the movement of ground water, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. For assistance in developing protection strategies, please contact the Coeur d'Alene Regional office of the Department of Environmental Quality or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR RIVER TERRACE MOBILE HOME PARK

Section 1. Introduction - Basis for Assessment

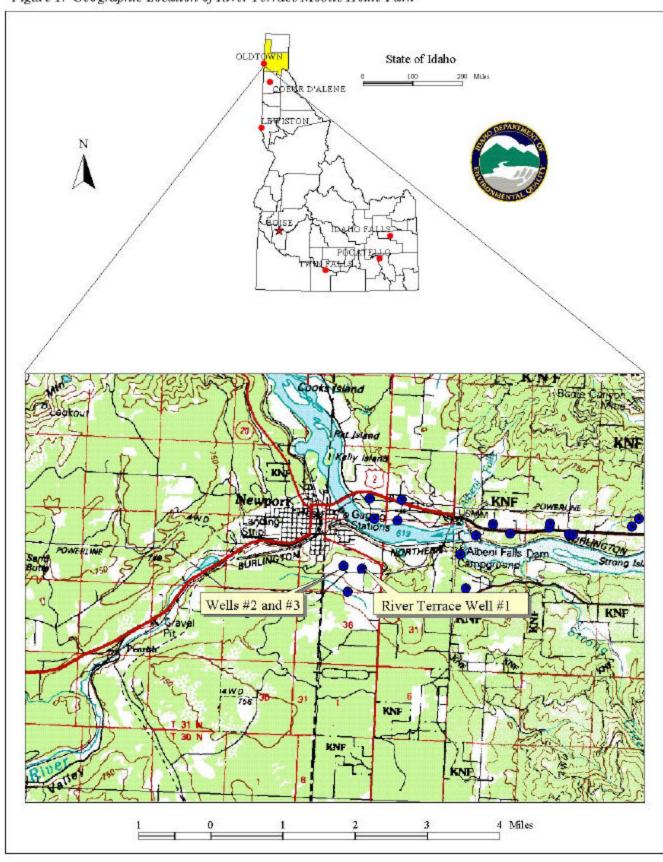
The following sections contain information necessary for understanding how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and an inventory of significant potential sources of contamination identified within that area are included. The ground water susceptibility analysis worksheets used to develop this assessment are attached.

Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess every public drinking water source in Idaho for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. These assessments are based on a land use inventory inside the delineated recharge zones, sensitivity factors associated with how the well is constructed, and aquifer characteristics. The state must complete more than 2900 assessments by May of 2003. Because resources and the time available to accomplish assessments are limited, an in-depth, site-specific investigation for every public water system is not possible.

The results of the source water assessment should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system. The ultimate goal of this assessment is to provide data to local communities for developing a protection strategy for their drinking water supply. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of River Terrace Mobile Home Park



Section 2. Preparing for the Assessment

Defining the Zones of Contribution - Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the well recharge area into time of travel zones indicating the number of years necessary for a particle of water to reach a well. DEQ used a refined computer model approved by the EPA to determine the time of travel (TOT) for water the River Terrace Mobile Home Park well pumps from its aquifer. This ground water flow model used data DEQ assimilated from a variety of sources including local well logs.

The River Terrace Mobile Home Park community water system serves a population of about 75people in the vicinity of Oldtown, Idaho (Figure 1). Water for the park's customers is supplied by 3 wells. Well #1 is 307 feet deep and has a capacity of 20 GPM. Well #2 is 295 feet deep and produces 14 GPM. Well #3, is 267 feet deep and produced 5 GPM when it was tested at the time it was drilled. Because Wells #2 and #3 are only about 40 feet apart, they are considered a well field drawing from the same source of water.

The delineated well recharge zone for River Terrace Mobile Home Park Well #1 is a narrow corridor about 300 feet wide and 0.7 miles long. It is divided into 0-3, 3-6 and 6-10-year time of travel zones enclosing a total of 25 acres. The 34-acre delineation for the wellfield is about 0.64 miles long and 460 feet wide. The primary direction of ground water flow is from south to north (Figure 2).

Identifying Potential Sources of Contamination

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. Inventories for public water systems in Idaho were conducted in two-phases. The first phase involved identifying and documenting potential contaminant sources inside individual source water assessment areas through the use of computer databases and Geographic Information System maps developed by DEQ. The maps and inventory lists were then sent to system operators for verification and correction in the second or enhanced part of the inventory process.

Figure 2, *River Terrace Mobile Home Park Delineation and Potential Contaminant Inventory* on page 7 of this report shows the location of the River Terrace Mobile Home Park wells, and the zones of contribution DEQ delineated for them. Land use inside the delineation boundaries is mostly agricultural. Septic tanks for the park are 100 to 300 feet north of the wells and outside of the delineated area.

Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. When a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the <u>potential</u> for contamination exists due to the nature of the business, industry, or operation.

Section 3. Susceptibility Analysis

The susceptibility to contamination of all groundwater sources in Idaho is being assessed on the following factors:

- physical integrity of the well,
- hydrologic characteristics,
- land use characteristics, and potentially significant contaminant sources
- historic water quality

The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. A high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking. The Susceptibility Analysis Worksheets in Attachment A show in detail how the River Terrace Mobile Home Park wells scored.

Well Construction

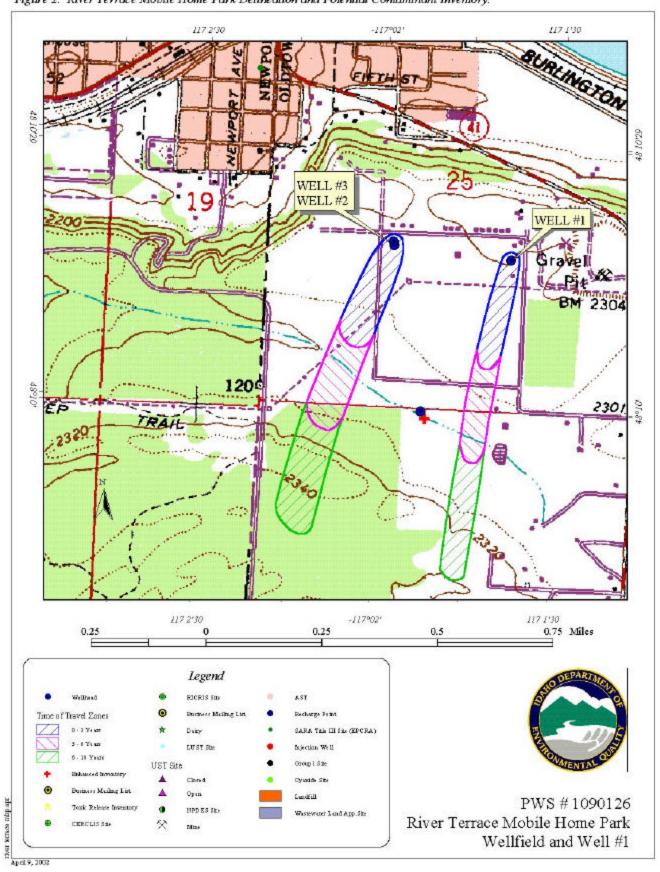
Well construction directly affects the ability of the wells to protect the aquifer from contaminants. Lower scores imply a well that can better protect the water. This portion of the susceptibility analysis relies on information from individual well logs and from the most recent sanitary survey of the public water system. Well logs for all of the River Terrace Mobile Home Park wells are on file with DEQ. The last sanitary survey of the system was conducted in April 2002.

Well #1 was drilled in April 1984 to a depth of 307 feet. The 8-inch steel casing extends from 1 foot above ground to 302 feet below the surface, passing through clay lenses at 55 to 58 feet and 85 to 90 feet. The well screen is set from 302 to 307 feet. The surface seal is 18 feet deep, terminating in a layer of sand. Current Idaho Department of Water Resources standards require a minimum surface seal depth of 20 feet for public drinking water wells. The static water level is at 262 feet.

Well #2, completed in March 1984, is reported to be 295 feet deep feet deep with a 6-inch steel casing from a foot above ground to 290 feet below. The screen is set from 290 to 295 feet. There are no distinct clay layers in the soil profile reported on the well log. Soils encountered during drilling were sand, sand mixed with clay and cemented sand. The static water level in Well #2 is 266 feet below the surface.

Well #3 has an 8-inch steel casing from 18 inches above ground to a depth of 267 feet with a well screen from 262 to 267 feet below the surface. The soil composition is a mix of clay and sand to the full depth of the well. The static water level is 245 feet below ground. The reported surface seal depth in Wells #2 and #3 is 18 feet. At the time of the April 2002 Sanitary Survey, the vents on Well #2 and Well #3 needed maintenance. The vent on Well #2 was full of small snails that needed to be removed. The vent on Well #3 needed to be screened.

Figure 2. River Terrace Mobile Home Park Delineation and Potential Contaminant Inventory.



Hydrologic Sensitivity

The hydrologic sensitivity scores for the River Terrace Mobile Home Park well are 5 points out of 6 points possible. The scores reflect natural geologic conditions in the recharge zone as a whole and at the well sites. Soils in the capture zones delineated for the wells are generally moderately well drained to well drained. Poorly drained to moderately well drained soils are deemed more protective of ground water than soils which drain faster. The depth to ground water in all the wells is less than 300 feet. The soil column above a deeper water table provides some protection from potential contaminants through adsorption and other mechanisms. The clay in the soil at the well sites is mostly un-stratified and does not form an aquitard to prevent vertical transport of contaminants.

Potential Contaminant Sources and Land Use

Agricultural land use inside the River Terrace Mobile Home Park well recharge zones accounts for all of the points accumulated in this portion of the susceptibility analysis. No point sources of potential contaminants are documented inside the delineation boundaries. Septic systems for the park are north of the recharge zones modeled for the wells.

Historic Water Quality

Historically, River Terrace Mobile Home Park has had few water quality problems. The system has never had a positive bacterial sample. Chemical and radiological test results for the park are summarized on the table below.

Table 1. River Terrace Mobile Home Park Wellfield Test Results

		P	rimary IOC Contar	ninants (Mandat	ory Tes	ts)			
Contaminant	MCL (mg/l)	Results (mg/l)	Dates	Contaminant	MCL (mg/l)	Results (mg/l)		Dates	
Antimony	0.006	ND	6/8/84 to 10/29/01	Nitrate	10	0.052 0.044 to 0.696		12/18/95 (Well #1) 6/28/88 to 2/26/97 (Wellfield 2,3)	
Arsenic	0.01		6/8/84 to 10/29/01	Nickel	N/A	ND		6/8/84 to 10/29/01	
Barium	2.0	0.06	12/15/97	Selenium	0.05	ND		6/8/84 to 10/29/01	
Beryllium	0.004	ND	6/8/84 to 10/29/01	Sodium	N/A	3.7 to 4.3 3.7 to 4.2		6/8/84 to 10/24/01 (Well #1) 6/28/88 to 10/24/01 (Wellfield 2,3)	
Cadmium	0.005	ND	6/8/84 to 10/29/01	Thallium	0.002	ND		6/8/84 to 10/29/01	
Chromium	0.1	ND	6/8/84 to 10/29/01	Cyanide	0.02	ND		6/8/84 to 10/29/01	
Mercury	0.002	ND	6/8/84 to 10/29/01	Fluoride	4.0	0.17		6/8/84	
		Second	ary and Other IOC	Contaminants (Optiona	al Test	ts)		
Contaminant Recommende Maximum (mg		••••••••••		Results (mg/l)		Dates			
Calcium			46.0			6/28/88			
Regulated and Unregulated Synthetic Organic Chemicals									
	Co	Results Dates			Dates				
29 Regulated and 13 Unregulated Synthetic Organic Compounds				None Detected 6/1/94, 12/29/98				/94, 12/29/98	

Table 1. River Terrace Mobile Home Park Wellfield Test Results continued

Regulated and Unregulated Volatile Organic Chemicals								
Contaminant	Results		Dates					
21 Regulated And 16 Unregulated	None Detec	ted	6/1/94, 12/29/98					
Compounds								
Radiological Contaminants								
Contaminant	MCL	Results	Dates					
Gross Alpha, Including Ra & U	15 pC/l	2.7 to 4.6 pC/l	6/8/84	to 11/27/01				
Gross Beta Particle Activity	4 mrem/year	3.3 mrem	2/26/9	26/97 (Distribution)				
		14 mrem	6/8/84	(Distribution)				
		3.9 pC/l	11/27/	27/01 (Wellfield 2,3)				

Final Susceptibility Ranking

The River Terrace Mobile Home Park wells ranked moderately susceptible to all classes of regulated contaminants. Risk factors associated with local geology added the most points to the final susceptibility scores. Table 2 summarizes final scores and rankings relative to each class of contaminant. The complete analysis worksheets for the wells are in Attachment A.

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

The final ranking categories are as follows:

- 0 5 Low Susceptibility
- 6 12 Moderate Susceptibility
- > 13 High Susceptibility

Table 2. Summary of River Terrace Mobile Home Park Susceptibility Evaluation

Final Susceptibility Scores/ Ranking								
	IOC	VOC	SOC	Microbial				
Well #1	10/Moderate	10/Moderate	10/Moderate	11/Moderate				
Well #2	12/Moderate	12/Moderate	12/Moderate	12/Moderate				
Well #3	12/Moderate	12/Moderate	12/Moderate	12/Moderate				

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

 $HIGH^*$ - Indicates source automatically scored as high susceptibility due to presence of bacteria or a VOC, SOC or an IOC above the maximum contaminant level in the tested drinking water

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

River Terrace Mobile Home Park operates and maintains its water system in substantial compliance with *Idaho Rules for Public Drinking Water Systems*. Necessary repairs cited in the 2002 sanitary survey included installation of a vent screen on Well #3 and cleaning the vent Well #2.

The park owns the land around its wells and restricts activity that could potentially contaminate the wells. Added protection measures the park should consider are covering the wellheads and fencing the well lots. In addition to providing a barrier to keep animals and vehicles away from the wells, a fence is a constant reminder that the well lot should be kept free from the use or storage of potential contaminants like lawn maintenance or dust abatement chemicals. The park should encourage use of cross connection control devices to prevent surface contaminants from siphoning into the distribution system during periods of low pressure.

In its own service area and in the capture zone for the wells, the system should promote ground water stewardship programs. Home*A*Syst and Farm*A*Syst for example are voluntary programs that help people assess environmental risks on their property and find technical support for making needed changes. The Internet has dozens of sites devoted to ground water stewardship programs that are tailored various age groups. 4H clubs in the area may be interested in undertaking water protection activities as a service project. The County Extension office is a resource for workshops devoted to topics like septic tank maintenance and household use of pesticide, herbicides and fertilizer that would be useful in a rural neighborhood.

Partnerships with state and local agencies, businesses in the capture zone and neighboring landowners should also be established. Some of them may not be aware that their property is in a sensitive area where household, agricultural or business practices could have a negative impact on water quality for the whole community. Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

Assistance

Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d'Alene Regional DEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

Website: http://www.deqstate.id.us

http://www.deq.state.id.us/water/water1.htm Public Water System Emergency Response Plan Guide

Water suppliers serving fewer than 10,000 persons may contact Melinda Harper of the Idaho Rural Water Association (208) 343-7001 for assistance with drinking water protection strategies.

References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Idaho Department of Agriculture, 1998. Unpublished Data.

Idaho Division of Environmental Quality, 1994. Ground Water and Soils Reconnaissance of the Lower Payette Area, Payette County, Idaho. Ground Water Quality Technical Report No. 5. Idaho Division of Environmental Quality. December 1994.

Idaho Division of Environmental Quality, 1996. Lower Payette River Agriculture Irrigation Water Return Study and Ground Water Evaluation, Payette County, Idaho. Water Quality Status Report No. 115.

Idaho Department of Environmental Quality, 1997. Design Standards for Public Drinking Water Systems. IDAPA 58.01.08.550.01.

Idaho Department of Environmental Quality, 2000. City of Fruitland Wellhead Viability Project 319 Grant Final Report July 2000.

Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Natural Resource Conservation Service, 1991. Idaho Snake-Payette Rivers Hydrologic Unit Plan of Work. March 1991.

United States Geological Survey, 1986. Quality of Ground Water in the Payette River Basin, Idaho. United States Geological Survey. Water Resources Investigation Report 86-4013.

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

Attachment A

River Terrace Mobile Home Park Susceptibility Analysis Worksheets

Ground Water Susceptibility

Public Water System Name : RIVER TERRACE MO	BILE HOME PARK Source: V	VELL #1			
Public Water System Number: 1090126	5/15/02 12:3				
1. System Construction		SCORE			
Drill Date	4/12/84				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 1995				
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	CASING YES, SEAL NO	1			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	NO	1			
Total System Construction Score		4			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	NO	2			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
Total Hydrologic Score		5			
		IOC	VOC	SOC	Microbia
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary S	etback)	Score	Score	Score	Score
Land Use Zone 1A	AGRICULTURE	2	2	2	2
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	2
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)				
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	25 to 50% Agricultural Land	2	2	2	2
Total Potential Contaminant Source / Land Use Score - Zone 1B		2	2	2	2
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II	Greater Than 50% Agricultural Land	2	2	2	
Potential Contaminant Source / Land Use Score - Zone II		2	2	2	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Agricultural lands occupy > 50% of Zone	YES	1	1	1	
Total Potential Contaminant Source / Land Use Score - Zone III		1	1	1	0
Cumulative Potential Contaminant / Land Use Score		7	7	7	4
4. Final Susceptibility Source Score		10	10	10	11
5. Final Well Ranking		Moderate	Moderate N	Moderate I	Moderate

Ground Water Susceptibility

Public Water System Name :RIVER TERRACE MOBILE HOME PARKSource:WELL #2Public Water System Number :10901265/15/02 12:35:17 PM

1. System Construction			SCORE			
Drill Date	3/20/84					
Driller Log Available	YES					
Sanitary Survey (if yes, indicate date of last survey)	YES	1995				
Well meets IDWR construction standards	NO		1			
Wellhead and surface seal maintained	NO	Vent needed cleaning	1			
Casing and annular seal extend to low permeability unit	NO		2			
Highest production 100 feet below static water level	NO		1			
Well located outside the 100 year flood plain	YES		0			
Total System Construction Score			5			
2. Hydrologic Sensitivity						
Soils are poorly to moderately drained	NO		2			
Vadose zone composed of gravel, fractured rock or unknown	NO		0			
Depth to first water > 300 feet	NO		1			
Aquitard present with > 50 feet cumulative thickness	NO		2			
Total Hydrologic Score			5			
			IOC	VOC	SOC	Microbia
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary S	etback)		Score	Score	Score	Score
Land Use Zone 1A	AGRICU	JLTURAL	2	2	2	2
Farm chemical use high	NO		0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO		NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A			2	2	2	2
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)						
Contaminant sources present (Number of Sources)	NO		0	0	0	0
(Score = # Sources X 2) 8 Points Maximum			0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO		0	0	0	
4 Points Maximum			0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO		0	0	0	0
Land use Zone 1B	Greater T	Γhan 50% Agricultural Land	4	4	4	4
Total Potential Contaminant Source / Land Use Score - Zone 1B			4	4	4	4
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)						
Contaminant Sources Present	NO		0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO		0	0	0	
Land Use Zone II	Greater T	Γhan 50% Agricultural Land	2	2	2	
Potential Contaminant Source / Land Use Score - Zone II			2	2	2	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO		0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO		0	0	0	
Agricultural lands occupy > 50% of Zone	NO		0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III			0	0	0	0
Cumulative Potential Contaminant / Land Use Score			8	8	8	6
4. Final Susceptibility Source Score			12	12	12	12
5. Final Well Ranking			Moderate	Moderate	Moderate	Moderate

Ground Water Susceptibility

Public Water System Name :RIVER TERRACE MOBILE HOME PARKSource:WELL #3Public Water System Number :10901265/15/02 12:35:36 PM

1. System Construction			SCORE			
Drill Date	9/21/94	4				
Driller Log Available	YES					
Sanitary Survey (if yes, indicate date of last survey)	YES	1995				
Well meets IDWR construction standards	NO		1			
Wellhead and surface seal maintained	NO	Vent Screen Missing	1			
Casing and annular seal extend to low permeability unit	NO		2			
Highest production 100 feet below static water level	NO		1			
Well located outside the 100 year flood plain	YES		0			
Total System Construction Score			5			
2. Hydrologic Sensitivity						
Soils are poorly to moderately drained	NO		2			
Vadose zone composed of gravel, fractured rock or unknown	NO		0			
Depth to first water > 300 feet	NO		1			
Aquitard present with > 50 feet cumulative thickness	NO		2			
Total Hydrologic Score			5			
			IOC	VOC	SOC	Microbial
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary S	etback)		Score	Score	Score	Score
Land Use Zone 1A	AGRIO	CULTURAL	2	2	2	2
Farm chemical use high	NO		0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO		NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A			2	2	2	2
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)						
Contaminant sources present (Number of Sources)	NO		0	0	0	0
(Score = # Sources X 2) 8 Points Maximum			0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO		0	0	0	
4 Points Maximum			0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO		0	0	0	0
Land use Zone 1B	Greater	Than 50% Agricultural Land	4	4	4	4
Total Potential Contaminant Source / Land Use Score - Zone 1B			4	4	4	4
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)						
Contaminant Sources Present	NO		0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO		0	0	0	
Land Use Zone II	Greater	Than 50% Agricultural Land	2	2	2	
Potential Contaminant Source / Land Use Score - Zone II			2	2	2	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO		0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO		0	0	0	
Agricultural lands that occupy $> 50\%$ of Zone	NO		0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III			0	0	0	0
Cumulative Potential Contaminant / Land Use Score			8	8	8	6
4. Final Susceptibility Source Score			12	12	12	12
5. Final Well Ranking			Moderate	Moderate	Moderate	Moderate

POTENTIAL CONTAMINANT INVENTORY LIST OF ACRONYMS AND DEFINITIONS

<u>AST (Aboveground Storage Tanks)</u> – Sites with aboveground storage tanks.

<u>BML</u> (<u>Business Mailing List</u>)— This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

<u>CERCLIS</u> – This includes sites considered for listing under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

<u>Cyanide Site</u> – DEQ permitted and known historical sites/facilities using cyanide.

<u>Dairy</u> – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

<u>Deep Injection Well</u> – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

<u>Group 1 Sites</u> – These are sites that show elevated levels of contaminants and are not within the priority one areas.

<u>Inorganic Priority Area</u> – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

<u>Landfill</u> – Areas of open and closed municipal and non-municipal landfills.

<u>LUST (Leaking Underground Storage Tank)</u> – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

<u>Mines and Quarries</u> – Mines and quarries permitted through the Idaho Department of Lands.)

<u>Nitrate Priority Area</u> – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System)

 Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

<u>Organic Priority Areas</u> – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

<u>Recharge Point</u> – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

<u>Closed Or Open UST (Underground Storage Tank)</u> – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

<u>Wastewater Land Applications Sites</u> – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

<u>Wellheads</u> – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.